



ecology and environment, inc.

CLOVERLEAF BUILDING 3, 6405 METCALF, OVERLAND PARK, KANSAS 66202, TEL. 913/432-9961

International Specialists in the Environment

MEMORANDUM

04-1

To:	K.C. Coal Gas
ID#:	000985769058
Book:	15
Other:	
	2/5/88

TO: Pete Culver, RPO

THRU: Philip Dula, AFITOM

FROM: Steven Vaughn, E & E/FIT

DATE: December 5, 1988

SUBJECT: Preliminary Assessment for the K.C. Coal Gas Site located in Kansas City, Missouri
TDD #F-07-8804-036 PAN #FM00655PA
Site #V09 Project #001
Superfund Contact: Greg Reesor

INTRODUCTION

The Ecology and Environment, Inc., Field Investigation Team (E & E/FIT) was tasked by the Region VII U.S. Environmental Protection Agency (EPA) to conduct a preliminary assessment of the Kansas City Coal Gas Plant. The site was identified by EPA as a potential hazardous waste site through a general search of all defunct coal gas plants in Region VII. Waste disposal practices typical of other coal gas plants operating during this time frame was on-site burial. Wastes include coal tars and oxides containing cyanide.

An on-site reconnaissance was conducted by Steven Vaughn and Eric Hess of E & E/FIT on September 28, 1988.

SITE DESCRIPTION AND HISTORY

The K.C. Coal Gas Plant was located on the Missouri River floodplain (approximately river mile 366.75) in downtown Kansas City. The approximate legal description for the site is S 1/2, NE 1/4, Section 32, T. 11 S., R. 33 W. (Figure 1).

According to old city directories and the Brown's Directory, the K.C. Coal Gas Plant operated from approximately 1872 to 1896 as the K.C. Gas Light and Coke Company. In 1896 the company changed names to the K.C. Gas Company until about 1907 when the company switched from manufactured gas to natural gas. The facility will be referred to as the K.C. Coal Gas Plant in this report.

The K.C. Coal Gas Plant consisted of two stations: "Station A" and "Station B". Station A was located between the Missouri River and Second Street and between Gillis and Campbell streets (Figure 2). During the on-site reconnaissance it was noted that all of "Station A" has been razed with no remnants. The location of the former coke shed and retort house is now a gravel parking lot used by KP & L, the current site owner. The area north of Front Street is covered by several railroad tracks. The location of the old gas holders is used for KP & L construction storage.

"Station B" was located between First and Third streets and between Gillis and Troost streets (Figure 2). During the site reconnaissance it was noted that many of the old buildings remain standing and are being used by KP & L as offices, storage, and garages by KP & L. It was also noted that a portion of one of the large gas holders is still standing and is encrusted with solidified tar. All areas not containing buildings have been asphalted or covered with gravel and used as driveways or parking areas.

The 1895 Sanborn Fire Insurance Map shows a pitch distillery and tar paper manufacturing plant, roofing company, and an ammonia company located in the vicinity of the plant (Figure 2). It is likely that a majority of the wastes produced by the K.C. Coal Gas Plant were distributed to these companies for reuse.

The site contact for a majority of the property is Allen Kettle, Environmental Coordinator for KP & L. Ownership of the property north of Front Street has not been established, however due to the extensive number of railroad tracks crossing the area it is suspected to be a railroad company.

STRATIGRAPHY AND HYDROGEOLOGY

The old K.C. Coal Gas Plant was located on the Missouri River floodplain approximately 1,000 feet south of the river. The soils in the area consist of the Haynie Urban Land-Leta Association. The soils are nearly level, moderately well drained and somewhat poorly drained soils that formed in the alluvium of the Missouri River floodplain (USDA 1984). Alluvial thickness is estimated to be approximately 85 to 90 feet with a water table at 20 feet (USGS 1975). Bedrock underlying the site is of the Kansas City Group which is composed of alternating limestone and shale members.

Ground water flows in the vicinity of the site is expected to be north-northeast toward the Missouri River. The water table is under unconfined conditions and discharges into the Missouri River. At times of high river flow ground water flow may be reversed with aquifer recharge occurring (USGS 1970).

The entire vicinity of the site is served by the Kansas City Municipal Water District, which draws its water from surface water intakes on the Missouri River upgradient of the site. There are no known surface water intakes three miles downgradient of the site. There are no known domestic wells within a five-mile radius of the site (Hasan 1988; MDNR 1980).

SUMMARY AND CONCLUSIONS

The quantity of waste and the potential disposal areas are unknown. No past records of the facility operations exist in the KP & L file. There are no known survivors that worked at the plant due to its extreme age. Station A of the coal gas plant has been demolished, making location of any alleged disposal areas impossible. Station B is currently used by KP & L with many of the original buildings still in use. A majority of the area is covered by asphalt and gravel. Other companies located near the coal gas plant such as a tar and roofing company, pitch distillery, and an ammonia company suggest that at least some of the wastes were sold and recycled by these companies. No surficial wastes were noted by the E & E/FIT during on-site reconnaissance.

Attachments: Bibliography
Figures 1 and 2
PA Form 2070-12

BIBLIOGRAPHY

Edison Electric Institute, September 1984, Handbook on Manufactured Gas Plant Sites.

Hasan, Syed E., Moberly, Richard L., Caoile, John A., Geology of Greater Kansas City, Missouri and Kansas, Bulletin of the AEG, Volume XXV, Number 3, August 1988.

HRS Users Manual

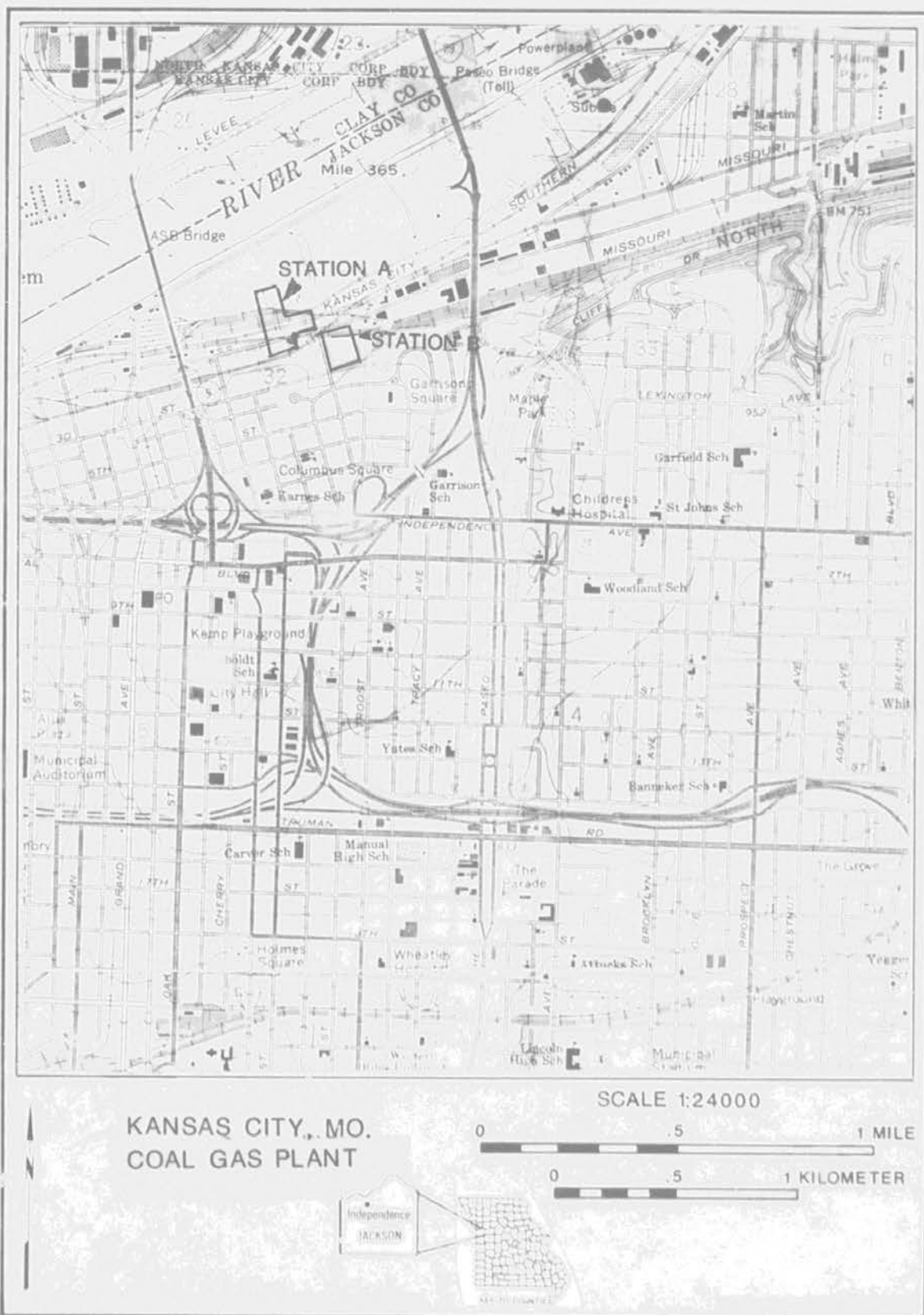
Missouri Department of Natural Resources, 1980, Census of Missouri Public Water Supplies

Sanborn Fire Insurance Map, 1895

U.S. Department of Agriculture, 1984, Soil Survey of Jackson County, Missouri, Washington, D.C.

U.S. Geological Survey, 1970, Hydrologic Atlas HA-344, Reconnaissance of the Ground Water Resources of the Missouri River Alluvium Between Miami and Kansas City, Missouri, Washington, D.C.

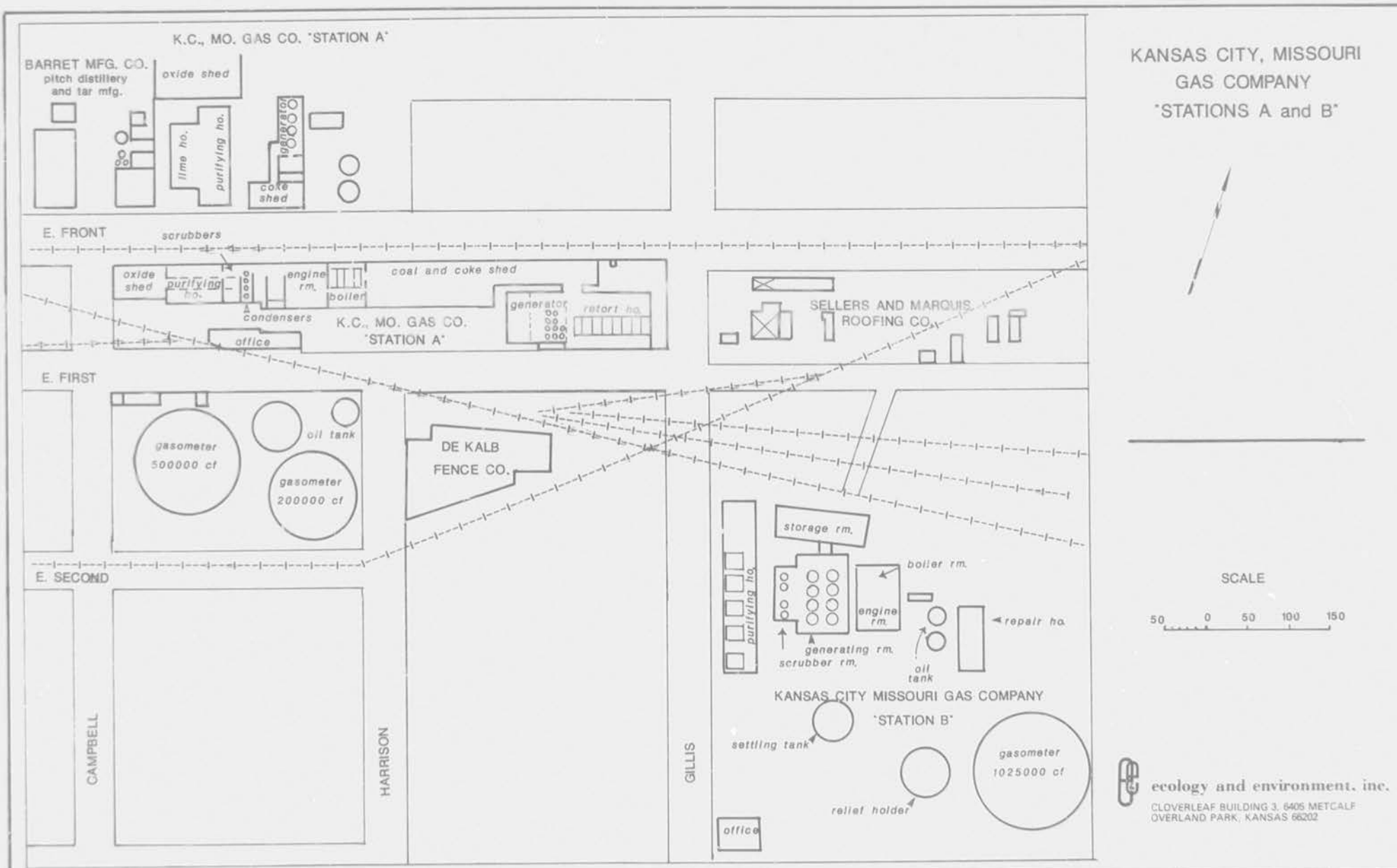
U.S. Geological Survey, 1975, 7.5 Minute Series Topographic Map, Kansas City, Missouri, Quadrangle, Missouri, Washington, D.C.



SOURCE: USGS KANSAS CITY, MO. QUAD 1975
WASTE SITE TRACKING #: MO0655

E & E/FIT, NOV. 1988
PREPARED BY STEVEN VAUGHN

FIGURE 1: SITE LOCATION MAP



Waste Site Tracking #: MO6655
Ref.: SANBORN FIRE INSURANCE 1895

prepared by Steven Vaughn

Nov. 1988

FIGURE 2: SITE MAP

POTENTIAL HAZARDOUS WASTE SITE

EPA

PRELIMINARY ASSESSMENT

PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE
MO

02 SITE NUMBER	Unassigned
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II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES

(Check all that apply)

X A. SOLID	E. SLURRY
1	1
2	2
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B. POWDER, FINES		F. LIQUID
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X C. SLUDGE	G. GAS
100	100
90	90
80	80
70	70
60	60
50	50
40	40
30	30
20	20
10	10
0	0

D. OTHER

(Specify)

02 WASTE QUANTITY AT SITE

(Measures of waste quantities must be independent)

TONS

CUBIC YARDS Unknown

NO. OF DRUMS

03 WASTE CHARACTERISTICS

(Check all that apply)

X A. TOXIC	E. SOLUBLE	I. HIGHLY VOLATILE
------------	------------	--------------------

B. CORROSIVE F. INFECTIOUS J. EXPLOSIVE

C. RADIOACTIVE G. FLAMMABLE K. REACTIVE

X D. PERSISTENT	H. IGNITABLE	L. INCOMPATIBLE
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M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE	Unknown		Coal tar
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS	Unknown		Oxide wastes
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

[illegible]

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS	NA		FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

E & E/FIT Preliminary Assessment Report

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT		I. IDENTIFICATION	
EPA PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS		01 STATE MO	02 SITE NUMBER Unassigned
II. HAZARDOUS CONDITIONS AND INCIDENTS			
01 <input checked="" type="checkbox"/> A. GROUNDWATER CONTAMINATION	02 <input type="checkbox"/> OBSERVED (DATE: _____)	X POTENTIAL	ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 0			
04 NARRATIVE DESCRIPTION PAH compounds could potentially leach from the alleged buried coal tars; however there is no known ground water usage in the site vicinity.			
01 <input type="checkbox"/> B. SURFACE WATER CONTAMINATION	02 <input type="checkbox"/> OBSERVED (DATE: _____)	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____			
04 NARRATIVE DESCRIPTION None known or reported to date. Not likely as the alleged wastes are buried.			
01 <input type="checkbox"/> C. CONTAMINATION OF AIR	02 <input type="checkbox"/> OBSERVED (DATE: _____)	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____			
04 NARRATIVE DESCRIPTION Not likely as the alleged wastes are buried. During a site reconnaissance no surface wastes were observed.			
01 <input type="checkbox"/> D. FIRE/EXPLOSIVE CONDITIONS	02 <input type="checkbox"/> OBSERVED (DATE: _____)	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____			
04 NARRATIVE DESCRIPTION None known or reported to date.			
01 <input type="checkbox"/> E. DIRECT CONTACT	02 <input type="checkbox"/> OBSERVED (DATE: _____)	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____			
04 NARRATIVE DESCRIPTION None known or reported to date.			
01 <input checked="" type="checkbox"/> F. CONTAMINATION OF SOIL	02 <input type="checkbox"/> OBSERVED (DATE: _____)	X POTENTIAL	ALLEGED
03 AREA POTENTIALLY AFFECTED: Unknown			
(Acres)			
04 NARRATIVE DESCRIPTION There is a potential for soil contamination from the alleged buried waste, however the existence and location of these wastes cannot be determined due to the age of the site.			
01 <input type="checkbox"/> G. DRINKING WATER CONTAMINATION	02 <input type="checkbox"/> OBSERVED (DATE: _____)	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____			
04 NARRATIVE DESCRIPTION None known or reported to date. The area is served by Kansas City municipal water which is collected from the Missouri River upgradient of the site			
01 <input type="checkbox"/> H. WORKER EXPOSURE/INJURY	02 <input type="checkbox"/> OBSERVED (DATE: _____)	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
03 WORKERS POTENTIALLY AFFECTED: _____			
04 NARRATIVE DESCRIPTION None known or reported to date.			
01 <input type="checkbox"/> I. POPULATION EXPOSURE/INJURY	02 <input type="checkbox"/> OBSERVED (DATE: _____)	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____			
04 NARRATIVE DESCRIPTION None known or reported to date.			

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT		I. IDENTIFICATION	
EPA	PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS	01 STATE MO	02 SITE NUMBER Unassigned
II. HAZARDOUS CONDITIONS AND INCIDENTS (CONTINUED)			
01 <u> </u> J. DAMAGE TO FLORA	02 <u> </u> OBSERVED (DATE: <u> </u>)	<u> </u> POTENTIAL	<u> </u> ALLEGED
04 NARRATIVE DESCRIPTION None known or reported to date.			
01 <u> </u> K. DAMAGE TO FAUNA	02 <u> </u> OBSERVED (DATE: <u> </u>)	<u> </u> POTENTIAL	<u> </u> ALLEGED
04 NARRATIVE DESCRIPTION (Include name(s) of species) None known or reported to date.			
01 <u> </u> L. CONTAMINATION OF FOOD CHAIN	02 <u> </u> OBSERVED (DATE: <u> </u>)	<u> </u> POTENTIAL	<u> </u> ALLEGED
04 NARRATIVE DESCRIPTION None known or reported to date.			
01 <u> </u> M. UNSTABLE CONTAINMENT OF WASTES (Spills/runoff/standing liquids/leaking drums)	02 <u> </u> OBSERVED (DATE: <u> </u>)	<u> </u> POTENTIAL	<u> </u> ALLEGED
03 POPULATION POTENTIALLY AFFECTED: <u> </u> 04 NARRATIVE DESCRIPTION None known or reported to date.			
01 <u> </u> N. DAMAGE TO OFFSITE PROPERTY	02 <u> </u> OBSERVED (DATE: <u> </u>)	<u> </u> POTENTIAL	<u> </u> ALLEGED
04 NARRATIVE DESCRIPTION None known or reported to date.			
01 <u> </u> O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs	02 <u> </u> OBSERVED (DATE: <u> </u>)	<u> </u> POTENTIAL	<u> </u> ALLEGED
04 NARRATIVE DESCRIPTION None known or reported to date.			
01 <u> </u> P. ILLEGAL/UNAUTHORIZED DUMPING	02 <u> </u> OBSERVED (DATE: <u> </u>)	<u> </u> POTENTIAL	<u> </u> ALLEGED
04 NARRATIVE DESCRIPTION None known or reported to date.			
05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS Future construction in the area could uncover the buried wastes			
III. TOTAL POPULATION POTENTIALLY AFFECTED: <u>None</u>			
IV. COMMENTS The FIT recommendation is that no further action is warranted at the site. However, information concerning potential buried waste should be placed on the property deed to protect future property owners should any construction occur on the site property.			
V. SOURCES OF INFORMATION (Cite specific references. e.g., state files, sample analysis, reports) E & E/FIT Preliminary Assessment			



POTENTIAL HAZARDOUS WASTE SITE
SITE IDENTIFICATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

MO

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)

Kansas City Gas Company

02 STREET, ROUTE NO. OR SPECIFIC LOCATION IDENTIFIER

1st & Campbell

03 CITY

Kansas City

04 STATE

MO

05 ZIP CODE

06 COUNTY

Jackson

07 COUNTY CODE

08 CONG DIST

09 DIRECTIONS TO SITE (Starting from nearest public road)

The potential site is located in downtown Kansas City on the Missouri River. The old site occupied several city blocks between Front street and 3rd street and between Troost and Campbell.

III. RESPONSIBLE PARTIES

01 OWNER (If known)

Presently unknown

02 STREET (Business, residential, mailing)

03 CITY

04 STATE

05 ZIP CODE

06 TELEPHONE NUMBER

07 OPERATOR (If known and different from owner)

Presently unknown

08 STREET (Business, residential, mailing)

09 CITY

10 STATE

11 ZIP CODE

12 TELEPHONE NUMBER

13 TYPE OF OWNERSHIP (Check one)

☒ A PRIVATE

☐ B FEDERAL

(Agency name)

☐ C STATE

☐ D COUNTY

☐ E MUNICIPAL

☐ F OTHER

(Specify)

☐ G UNKNOWN

IV. HOW IDENTIFIED

01 DATE IDENTIFIED

MONTH DAY YEAR

02 IDENTIFIED BY (Check all that apply)

☐ A CITIZEN COMPLAINT

☐ B INDUSTRY

☐ C STATE/LOCAL GOVERNMENT

☐ D AERIAL RECONNAISSANCE

☐ E RCRA INSPECTION

☐ F SURFACE IMPOUNDMENT ASSESSMENT

☐ G OTHER EPA IDENTIFICATION

☒ H OTHER

Brown's Directory of Gas Producers

(Specify)

V. SITE CHARACTERIZATION

01 TYPE OF SITE (Check all that apply)

☒ A STORAGE

☐ B TREATMENT

☒ C DISPOSAL

☐ D UNAUTHORIZED DUMPING

☒ E OTHER Coal Gas Mfg.

(Specify)

02 SUMMARY OF KNOWN PROBLEMS (Provide narrative description)

None known

Kansas City Coal Gas
Mfg. Co. 1958
14

1958

03 SUMMARY OF ALLEGED OR POTENTIAL PROBLEMS (Provide narrative description)

Potential on-site disposal of wastes resulting from coal gas manufacturing. Wastes may include coal tar and oxide wastes which may have been buried in shallow trenches contaminating soils and/or groundwater.

VI. INFORMATION AVAILABLE FROM

01 CONTACT

Kerry Herndon

02 OF (Agency/organization)

Region VII EPA - Superfund

03 TELEPHONE NUMBER

(513) 236-2856

04 PREPARED BY

L. Steven Vaughn

05 AGENCY

EPA

06 ORGANIZATION

FIT

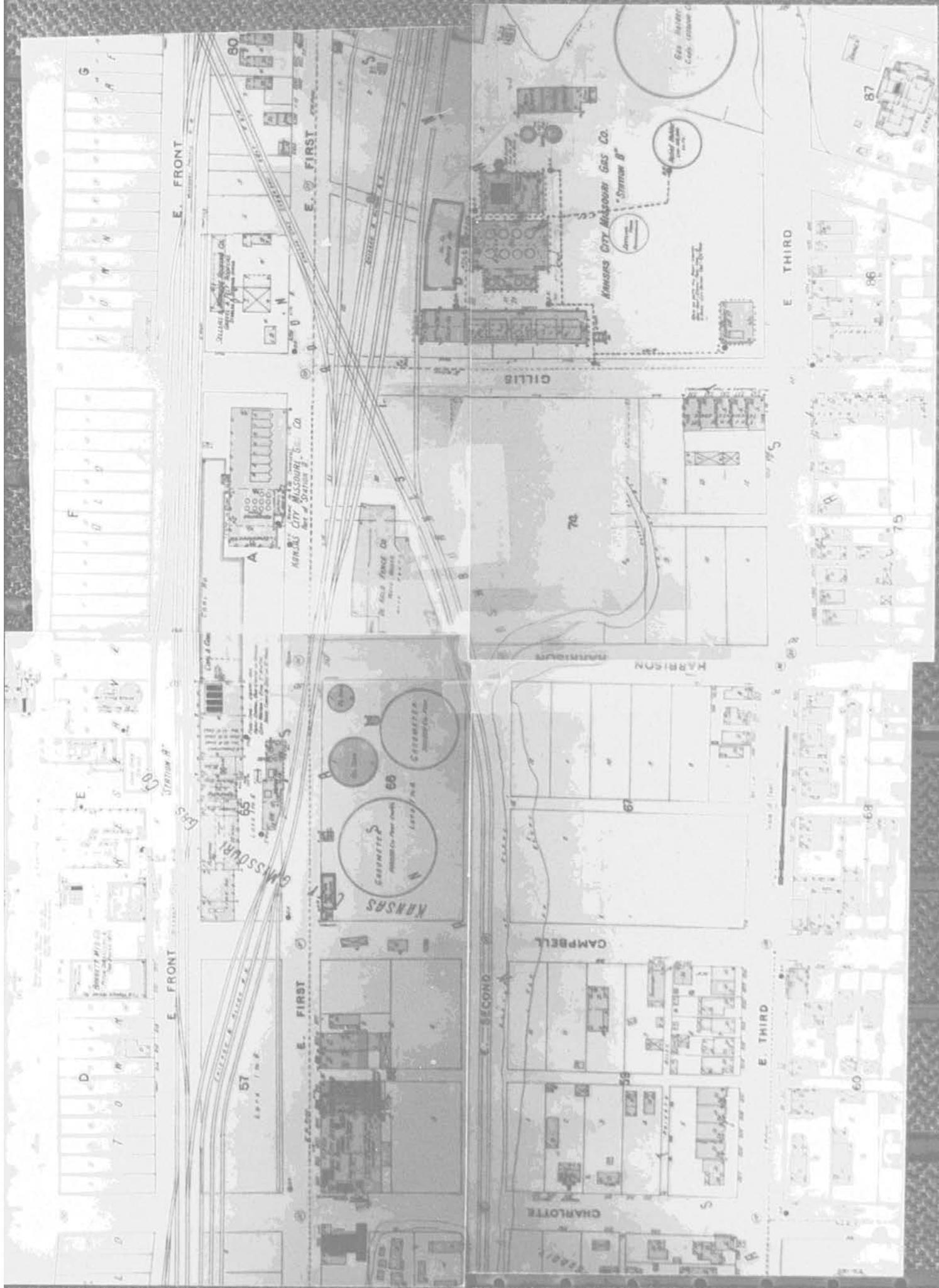
07 TELEPHONE NUMBER

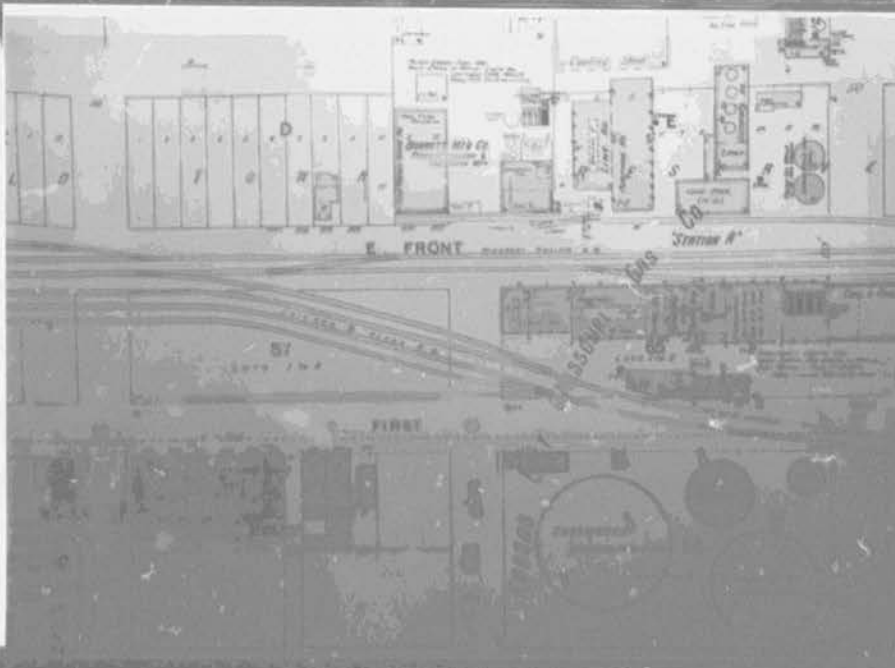
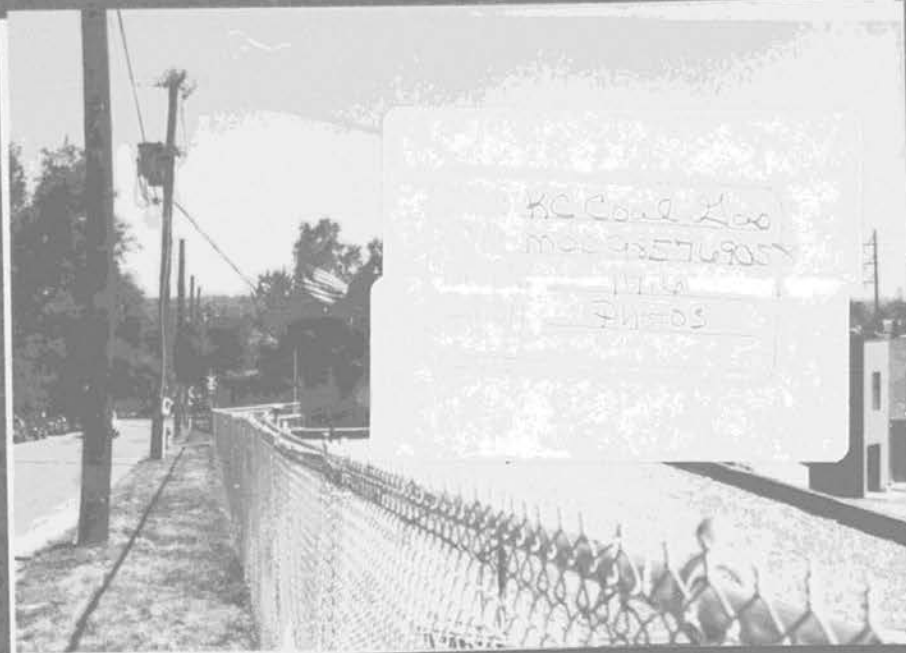
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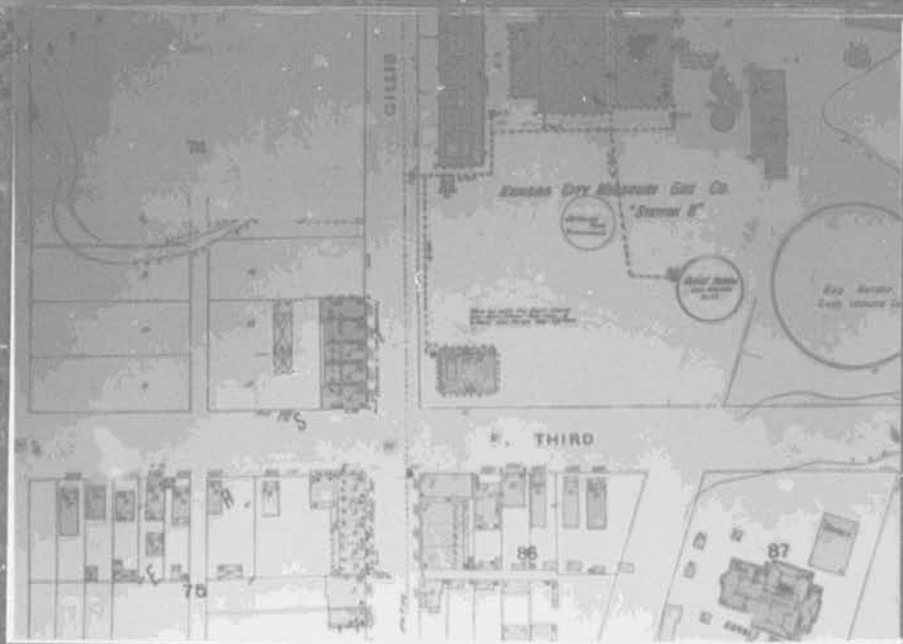
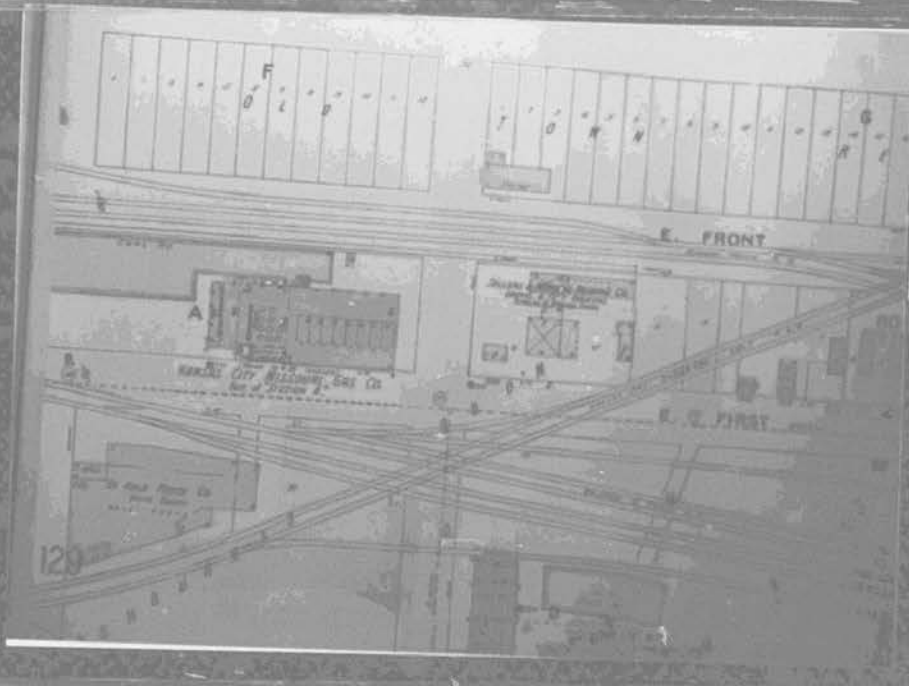
08 DATE

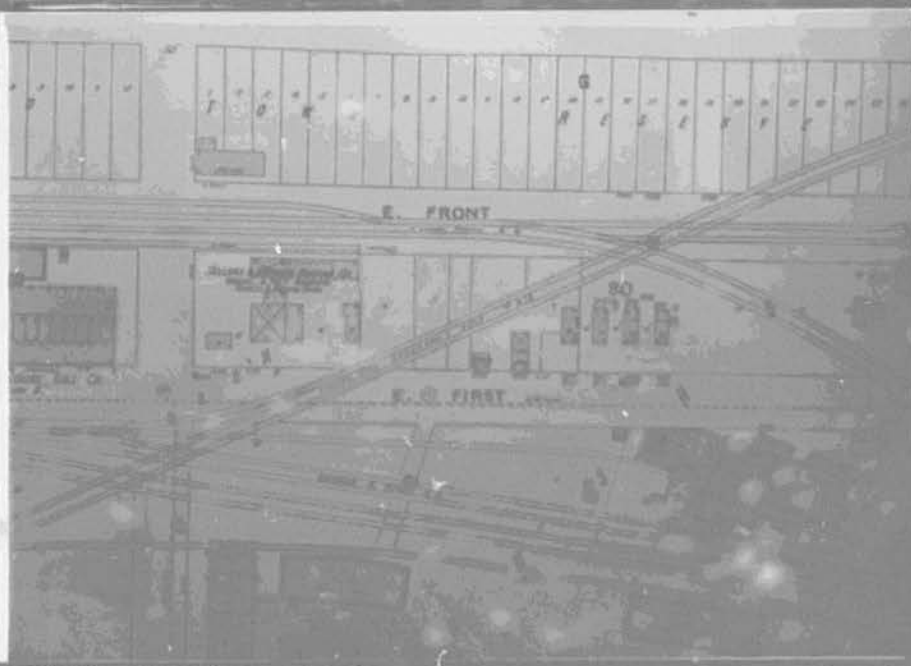
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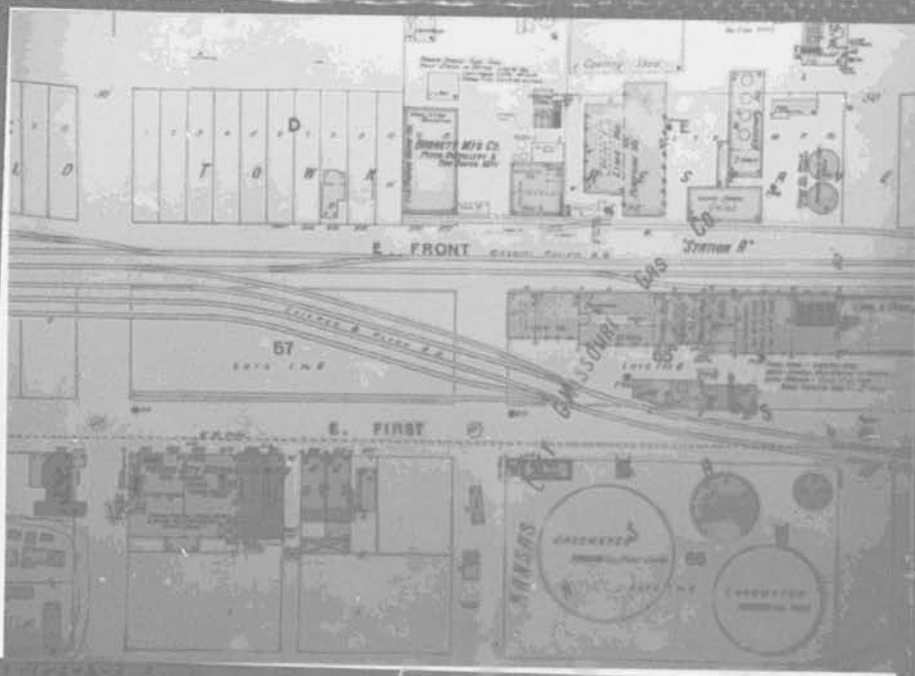
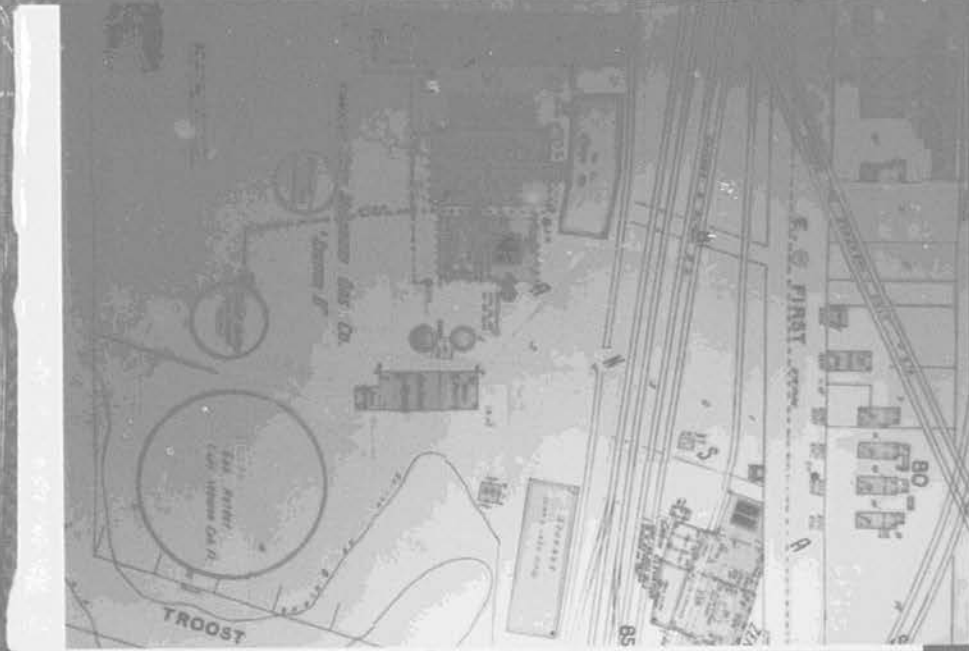
MONTH DAY YEAR

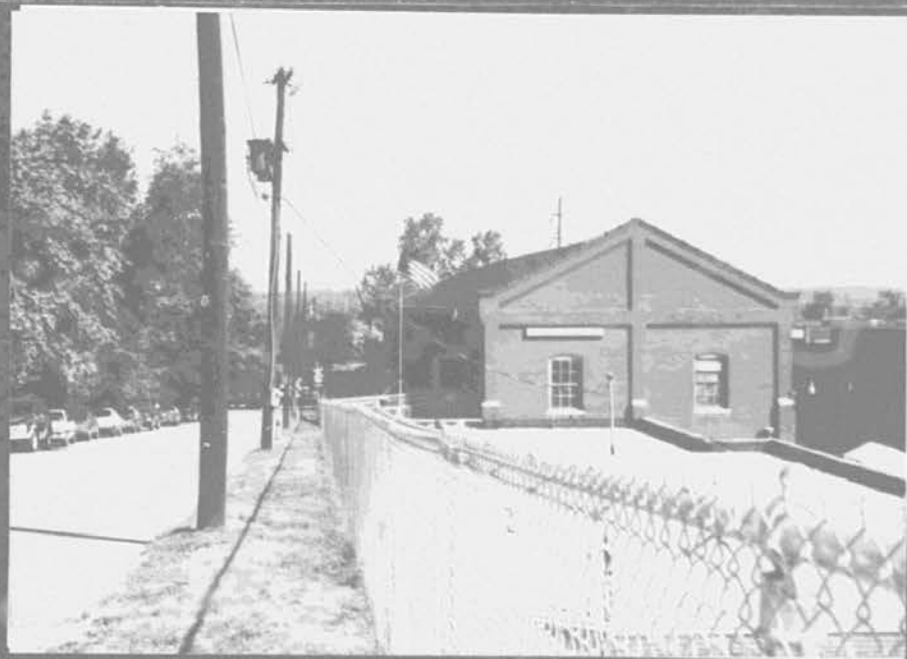
















POTENTIAL HAZARDOUS WASTE SITE
FINAL STRATEGY DETERMINATION

REGION SITE NUMBER

VII

File this form in the regional Hazardous Waste Log File and submit a copy to: U.S. Environmental Protection Agency; Site Tracking System; Hazardous Waste Enforcement Task Force (EN-335); 401 M St., SW; Washington, DC 20460.

I. SITE IDENTIFICATION

A. SITE NAME Kansas City Coal Gas D. STREET 1st and Campbell
C. CITY Kansas City D. STATE Missouri E. ZIP CODE

II. FINAL DETERMINATION

Indicate the recommended action(s) and agency(ies) that should be involved by marking 'X' in the appropriate boxes.

RECOMMENDATION	MARK 'X'	ACTION AGENCY			
		EPA	STATE	LOCAL	PRIVATE
A. NO ACTION NEEDED		X			
B. REMEDIAL ACTION NEEDED, BUT NO RESOURCES AVAILABLE (If yes, complete Section III.)					
C. REMEDIAL ACTION (If yes, complete Section IV.)					
D. ENFORCEMENT ACTION (If yes, specify in Part II whether the case will be primarily managed by the EPA or the State and what type of enforcement action is anticipated.)					

E. RATIONALE FOR FINAL STRATEGY DETERMINATION

Coal gas manufacturing plant (1872-1907). Site reconnaissance revealed no signs of surficial waste. Possibility of buried waste does exist. However, a more likely possibility is that the waste was used as a raw material by other businesses (pitch distillery, tar paper manufacturing plant, roofing company, and ammonia plant) in the immediate area.

F. IF A CASE DEVELOPMENT PLAN HAS BEEN PREPARED, SPECIFY THE DATE PREPARED (mo., day, & yr.)

G. IF AN ENFORCEMENT CASE HAS BEEN FILED, SPECIFY THE DATE FILED (mo., day, & yr.)

II. PREPARER INFORMATION

1. NAME Greg Reesor 2. TELEPHONE NUMBER (913) 236-2856 3. DATE (mo., day, & yr.) 3/29/89

III. REMEDIAL ACTIONS TO BE TAKEN WHEN RESOURCES BECOME AVAILABLE

List all remedial actions, such as excavation, removal, etc. to be taken as soon as resources become available. See instructions for a list of Key Words for each of the actions to be used in the spaces below. Provide an estimate of the approximate cost of the remedy.

A. REMEDIAL ACTION	B. ESTIMATED COST	C. REMARKS
	\$	
	\$	
	\$	
	\$	
	\$	
	\$	
	\$	
	\$	
	\$	
D. TOTAL ESTIMATED COST	\$	